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AMENDED SPECIFICATION.

This Print is in accordance with the Original Specification as it stands after Amendment (under Section 18 of the Patents, &c., Act, 1883), as allowed by the decision of the Comptroller General of the 6th day of July 1896.



DUPLICATE

N^o 4336*. 27th MARCH, A.D. 1886.

COMPLETE SPECIFICATION (AMENDED).

Improvements in and Connected with the Manufacture of Bread and Biscuits.

I, JOHN MONTGOMERIE, of Virginia Place, 361 Dumbarton Road, Partick Lanarkshire, Baker do hereby declare the nature of my said invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement:—

- 5 My said invention has reference to certain new or improved special mixtures and mode of treatment of ground wheat, corn or other flour or meal with other matters for the making of bread and biscuits or cakes, which will assist digestion, and be very light, agreeable, and nourishing food for people of weak digestion and for children and infants.
- 10 By my said improvements the bread is prepared as will be hereinafter described from a mixture of wheat flour or meal and Semolina, with "Malt Extract" or "Maltine," treated in a novel and special manner; and the biscuits are prepared from the above three ingredients, with oat or corn flour or meal added thereto; while ordinary seasonings or other ingredients may be incorporated with these
- 15 mixtures as desired by the Bakers or to suit the popular taste.

And in order that the nature of my said invention, and the mode of performing or carrying it into effect or practice may be properly understood, I shall now proceed to describe the same in and by the following statement in writing:—

- My said invention or improvements, comprise or consist all as follows:—In and
- 20 for the manufacture of bread, I take about one third of the quantity of flour or wheat meal required for making the dough as 4 lbs to each 14 lbs of flour or meal used, and I add thereto a portion of water at a temperature of about 120 degrees

[Price 8d.]

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Montgomerie's Improvements in the Manufacture of Bread and Biscuits.

Fahrenheit, and put it into a suitable vessel and thoroughly mix the flour or wheat meal and water together into a paste or batter, I then add a suitable quantity of "Extract of Malt" or "Maltine," about half that of the flour used in this mixture, and heat the vessel on a fire, or place it into another vessel or boiler filled with hot water and keep stirring the mixture until it rises to a temperature of between 130° 5 and 150 degrees Fahrenheit. A suitable vessel for mixing and making this special preparation of flour with "Malt Extract" would consist of a revolving cylinder with vanes in it for agitating the ingredients and mixture stated which would be inserted and withdrawn through a screwed door in the side, and this would be rotated within an outer close covered-in vessel with hot water in it, so as to be actuated 10 by a handle or gearing from the outside; while being treated and maintained at the temperatures described so that the diastase or ptyaline of the "Malt-Extract" will re-act on the insoluble starch of the flour and convert it into soluble dextrine, the re-action being,—starch + Extract of malt = Dextrine + Grape Sugar. I maintain the mixture for a few hours at the temperature of 130 to 150 degrees 15 Fahrenheit, to allow the diastase or ptyaline time to act upon the insoluble starch of the wheat or flour and convert the whole of it into soluble dextrine as above described, and the mixture is then allowed to cool.

For making the bread I take this special prepared mixture of "Extract of Malt," and flour, and I add thereto the remainder of the flour or wheat meal say 10 lbs, 20 and the proper proportion of fermented sponge dough say 14 lbs, and a proportion of Semolina equal to the weight of the "Malt Extract" used in the mixture to be used with carbonate or bicarbonate of Soda bitartrate of potash or Cream of Tarter, Salt and any other seasonings or materials required to suit the different classes of Bread I am making and I then dough or mix the whole ingredients 25 together and cut or divide and weigh it into loaves and place these into Tins, or batch them in the oven in the usual way for batch bread.

Having thus described the nature of my said invention as applied to the manufacture of bread I will now proceed to describe the mode of performing or carrying the same into effect or practice. 30

I have found the following proportions or quantities of materials very suitable in the manufacture of a Brown fermented Extract of Malt Bread, which I prepare as follows:—in accordance with my said invention, I take 4 lbs of fine flour and about 4 quarts of water at a temperature of about 120 degrees Fahrenheit, I then add 2 lbs of "Extract of Malt" or "Maltine," and place the whole in a suitable 35 vessel which is heated on a fire or placed into another vessel or boiler containing hot water, and I keep stirring the mixture and bring it up to a temperature of between 130 and 150 degrees Fahrenheit, and maintain it at that temperature for a few hours, to allow the diastase to act on the insoluble starch of the flour and convert it into soluble Dextrine. After this prepared material becomes cool I mix 40 it with the following ingredients,—10 lbs rough wheat flour or meal; 2 lbs Semolina; 4 ounces Carbonate of Soda; 6 ounces Cream of Tarter; $\frac{1}{2}$ lb Lard; 14 lbs fermented roll or Batch dough; $1\frac{1}{2}$ ounces Salt; with the addition of any other desired ingredients or seasonings. I then thoroughly knead the whole mixture together and cut or divide and weigh it into loaves of suitable size and bake these 45 in tins or in batches in a "cool oven." In preparing fine "Extract of Malt" or "Maltine" loaf bread very suitable for Invalids, where wheat meal is considered irritable, I do so in the same manner and take the same ingredients as for the Brown bread, but substitute fine wheat flour for the wheaten meal. In preparing an ordinary batch of white loaf bread, according to my improvements I set the 50 sponge in the usual way with a portion of the water required, and Barm or Yeast; and I take about one third of the flour and the remainder of the water that is required to make the full quantity of dough and treat it in the same manner with the special mixture of flour with "Extract of Malt" or "maltine," as hereinbefore described. 55

My improvements as described are also applicable to unfermented bread as well as to fermented bread only substituting flour dough for the fermented batch dough. 5

Montgomerie's Improvements in the Manufacture of Bread and Biscuits.

In the manufacture of biscuits my said invention or improvements consist as follows:—In preparing the dough for the manufacture of good digestive biscuits, in accordance with my improvements, I take the "Extract of Malt" or "Maltine," with the wheaten flour or meal in the proportions of from 1 lb to 2, to 3 to 4 lbs by weight and the quantity of water required to bring the mixture to a pasty consistency, and put it through the same process as hereinbefore described for the manufacture of loaf bread, with the addition of a proportion of oat or corn flour, but without the fermented sponge dough. When this mixture becomes cool I dough or mix all together, adding butter or lard, sugar and any other ingredients that may be desired by the Bakers or to suit the popular taste. The dough is afterwards kneaded and baked and rolled out and cut into biscuits in the ordinary manner as is usual in the manufacture of other biscuits. In making biscuits in accordance with my said improvements, I find the following proportions or quantities of ingredients most suitable, and I proceed as follows.—To 12 lbs of fine wheat flour or meal I add about five quarts of warm water at a temperature of about 120 degrees Fahrenheit, to bring it to a pasty consistency, I then add 6 lbs of "Extract of Malt" or "Maltine," and place the mixture in a suitable vessel and bring it up to a temperature of between 130 and 150 degrees Fahrenheit, and keep stirring it all the time, and I allow it to stand at that temperature for say a few hours and then allow it to cool.

I then add to this mixture of flour with Extract of Malt the following ingredients,—4 lbs of Semolina; $2\frac{1}{2}$ lbs Oat flour; 24 lbs wheat meal or rough flour; 8 ounces of Carbonate of Soda; 12 ounces of Cream of Tarter; $7\frac{1}{2}$ lbs of butter or lard; 1 lb of Sugar; 2 ozs Salt; with the addition of any other desired ingredients or seasonings; I afterwards mix all the ingredients together and knead and roll out the dough and divide or cut it and bake it into biscuits all otherwise in an ordinary manner. In preparing a fine Nursery biscuit, I treat the flour with "Extract of Malt" or "Maltine," in the same manner as described for the digestive biscuit, and use the same ingredients, but substitute fine dressed wheat flour for the rough wheat flour or meal.

In preparing a dough for the manufacture of "Extract of Malt" Rusk bread in accordance with these my improvements, I take for preparing the "Extract of Malt" mixture, 4 lbs of fine wheat flour; 2 quarts of water; 3 lbs of "Extract of Malt" or "Maltine," and put the mixture through the same process as described for the manufacture of bread and biscuits, and when cool I mix it with the following ingredients.—12 lbs of Roll or Batch fermented dough; 1 lb of butter; $1\frac{1}{2}$ lbs of Semolina; while eggs, sugar of milk, and other seasonings may be added as desired.

I make a bread food for infants or delicate children by grinding my said rusk bread or fine biscuits, into a flour or meal, and place it into tins for preservation and use.

Although I have given special mixtures of ingredients for making the doughs of brown and white "Extract of Malt" bread, and Extract of Malt biscuits, to be mixed with my special preparation or mixture of flour with "Extract of Malt" or "Maltine," it will be understood that my preparation of flour with Malt Extract may be used with ordinary mixtures of doughs for bread, and biscuits.

Having thus particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

The mode herein distinguished for manufacturing or making improved bread, and biscuits substantially as herein described.

Dated this 27th day of March 1886.

W. R. M. THOMSON & Co.,
Agents.

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1886

*Canned Ground Flour
Bread, Biscuits, etc.
Malted*

A.D. 1886, 27th MARCH. N° 4336.

RECORDED

COMPLETE SPECIFICATION.

Improvements in and Connected with the Manufacture of Bread and Biscuits.

I, JOHN MONTGOMERIE, of Virginia Place, 361 Dumbarton Road, Partick Lanarkshire, Baker do hereby declare the nature of my said invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement:—

5 My said invention has reference to certain new or improved special mixtures and mode of treatment of ground wheat, corn or other flour or meal with other matters for the making of bread and biscuits or cakes, which will assist digestion, and be very light, agreeable, and nourishing food for people of weak digestion and for children and infants.

10 By my said improvements the bread is prepared as will be hereinafter described from a mixture of wheat flour or meal and Semolina, with "Malt Extract" or "Maltine," treated in a novel and special manner; and the biscuits are prepared from the above three ingredients, with oat or corn flour or meal added thereto; while ordinary seasonings or other ingredients may be incorporated with these

15 mixtures as desired by the Bakers or to suit the popular taste.
And in order that the nature of my said invention, and the mode of performing or carrying it into effect or practice may be properly understood, I shall now proceed to describe the same in and by the following statement in writing:—

My said invention or improvements, comprise or consist all as follows:—In and
20 for the manufacture of bread I take about one third of the quantity of flour or wheat meal required for making the dough as 4 lbs to each 14 lbs of flour or meal used, and I add thereto a portion of water at a temperature of about 120 degrees Fahrenheit, and put it into a suitable vessel and thoroughly mix the flour or wheat meal and water together into a paste or batter, I then add a suitable quantity of
25 "Extract of Malt" or "Maltine," about half that of the flour used in this mixture, and heat the vessel on a fire, or place it into another vessel or boiler filled with hot water and keep stirring the mixture until it rises to a temperature of about 150 degrees Fahrenheit. A suitable vessel of special preparation of "Malt" or "Maltine" is used.

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Montgomery's Improvements in the Manufacture of Bread and Biscuits.

within an outer close covered-in vessel with hot water in it, so as to be actuated by a handle or gearing from the outside; while being treated and maintained at the temperatures described so that the diastase or ptyaline of the "Malt-Extract" will re-act on the insoluble starch of the flour and convert it into soluble dextrine, the re-action being,—starch + Extract of malt = Dextrine + Grape Sugar. I 5 maintain the mixture for a few hours at the temperature of 130 to 150 degrees Fahrenheit, to allow the diastase or ptyaline time to act upon the insoluble starch of the wheat or flour and convert the whole of it into soluble dextrine as above described, and the mixture is then allowed to cool.

For making the bread I take this special prepared mixture of "Extract of Malt," 10 and flour, and I add thereto the remainder of the flour or wheat meal say 10 lbs, and the proper proportion of fermented sponge dough say 14 lbs, and a proportion of Semolina equal to the weight of the "Malt Extract" used in the mixture to be used with carbonate or bicarbonate of Soda, bitartrate of potash or Cream of Tarter, Salt and any other seasonings or materials required to suit the different 15 classes of Bread I am making and I then dough or mix the whole ingredients together and cut or divide and weigh it into loaves and place these into Tins, or batch them in the oven in the usual way for batch bread.

Having thus described the nature of my said invention as applied to the manufacture of bread I will now proceed to describe the mode of performing or 20 carrying the same into effect or practice.

I have found the following proportions or quantites of materials very suitable in the manufacture of a Brown fermented Extract of Malt Bread, which I prepare as follows:—in accordance with my said invention, I take 4 lbs of fine flour and about 4 quarts of water at a temperature of about 120 degrees Fahrenheit, I then 25 add 2 lbs of "Extract of Malt" or "Maltine," and place the whole in a suitable vessel which is heated on a fire or placed into another vessel or boiler containing hot water, and I keep stirring the mixture and bring it up to a temperature of between 130 and 150 degrees Fahrenheit, and maintain it at that temperature for a few hours, to allow the diastase to act on the insoluble starch of the flour and 30 convert it into soluble Dextrine. After this prepared material becomes cool I mix it with the following ingredients,—10 lbs rough wheat flour or meal; 2 lbs Semolina; 4 ounces Carbonate of Soda; 6 ounces Cream of Tarter; $\frac{1}{2}$ lb Lard; 14 lbs fermented roll or Batch dough; $1\frac{1}{2}$ ounces Salt; with the addition of any other desired ingredients or seasonings. I then thoroughly knead the whole mixture 35 together and cut or divide and weigh it into loaves of suitable size and bake these in tins or in batches in a "cool oven." In preparing fine "Extract of Malt" or "Maltine" loaf bread very suitable for Invalids, where wheat meal is considered irritable, I do so in the same manner and take the same ingredients as for the Brown bread, but substitute fine wheat flour for the wheaten meal. In preparing 40 an ordinary batch of white loaf bread, according to my improvements I set the sponge in the usual way with a portion of the water required, and Barm or Yeast; and I take about one third of the flour and the remainder of the water that is required to make the full quantity of dough and treat it in the same manner with the special mixture of "Extract of Malt" or "maltine," as hereinbefore described. 45

My improvements as described are also applicable to unfermented bread as well as to fermented bread only substituting flour dough for the fermented batch dough.

In the manufacture of biscuits my said invention or improvements consist as follows:—In preparing the dough for the manufacture of good digestive biscuits, in accordance with my improvements, I take the "Extract of Malt" or "Maltine," 50 with the wheaten flour or meal in the proportions of from 1 lb to 2, to 3 to 4 lbs by weight and the quantity of water required to bring the mixture to a pasty state and put it through the same process as hereinbefore described for the addition of a proportion of oat or corn flour, becomes cool I dough 55

Montgomerie's Improvements in the Manufacture of Bread and Biscuits.

kneaded and baked and rolled out and cut into biscuits in the ordinary manner as is usual in the manufacture of other biscuits. In making biscuits in accordance with my said improvements, I find the following proportions or quantities of ingredients most suitable, and I proceed as follows.—To 12 lbs of fine wheat flour or meal I add about five quarts of warm water at a temperature of about 120 degrees Fahrenheit, to bring it to a pasty consistency, I then add 6 lbs of "Extract of Malt" or "Maltine," and place the mixture in a suitable vessel and bring it up to a temperature of between 130 and 150 degrees Fahrenheit, and keep stirring it all the time, and I allow it to stand at that temperature for say a few hours and then allow it to cool.

I then add to this Extract of Malt mixture the following ingredients,—4 lbs of Semolina; $2\frac{1}{2}$ lbs Oat flour; 24 lbs wheat meal or rough flour; 8 ounces of Carbonate of Soda; 12 ounces of Cream of Tarter; $7\frac{1}{2}$ lbs of butter or lard; 1 lb of Sugar; 2 ozs Salt; with the addition of any other desired ingredients or seasonings; I afterwards mix all the ingredients together and knead and roll out the dough and divide or cut it and bake it into biscuits all otherwise in an ordinary manner. In preparing a fine Nursery biscuit, I treat the "Extract of Malt" or "Maltine," in the same manner as described for the digestive biscuit, and use the same ingredients, but substitute fine dressed wheat flour for the rough wheat flour or meal.

In preparing a dough for the manufacture of "Extract of Malt" Rusk bread in accordance with these my improvements, I take for preparing the "Extract of Malt" mixture, 4 lbs of fine wheat flour; 2 quarts of water; 3 lbs of "Extract of Malt" or "Maltine," and put the mixture through the same process as described for the manufacture of bread and biscuits, and when cool I mix it with the following ingredients.—12 lbs of Roll or Batch fermented dough; 1 lb of butter; $1\frac{1}{2}$ lbs of Semolina; while eggs, sugar of milk, and other seasonings may be added as desired.

I make a bread food for infants or delicate children by grinding my said rusk bread or fine biscuits, into a flour or meal, and place it into tins for preservation and use.

Although I have given special mixtures of ingredients for making the doughs of brown and white "Extract of Malt" bread, and Extract of Malt biscuits, to be mixed with my special preparation or mixture of "Extract of Malt" or "Maltine," it will be understood that my preparation of Malt Extract may be used with ordinary mixtures of doughs for bread, and about one half for biscuits.

Having thus particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

First. The mode and means and combination of mixtures with the special preparation of Malt Extract, herein distinguished for manufacturing or making bread, and biscuits substantially in the new or improved manner herein described.

Second. The preparation and use of a special mixture of wheat flour or meal with an Extract of Malt, or Maltine, substantially as herein described for mixing with or making up the Dough for the manufacture or making of bread and biscuits.

Dated this 27th day of March 1886.

W. R. M. THOMSON & Co.,
Agents.

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For Her Majesty's Stationery Office.

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